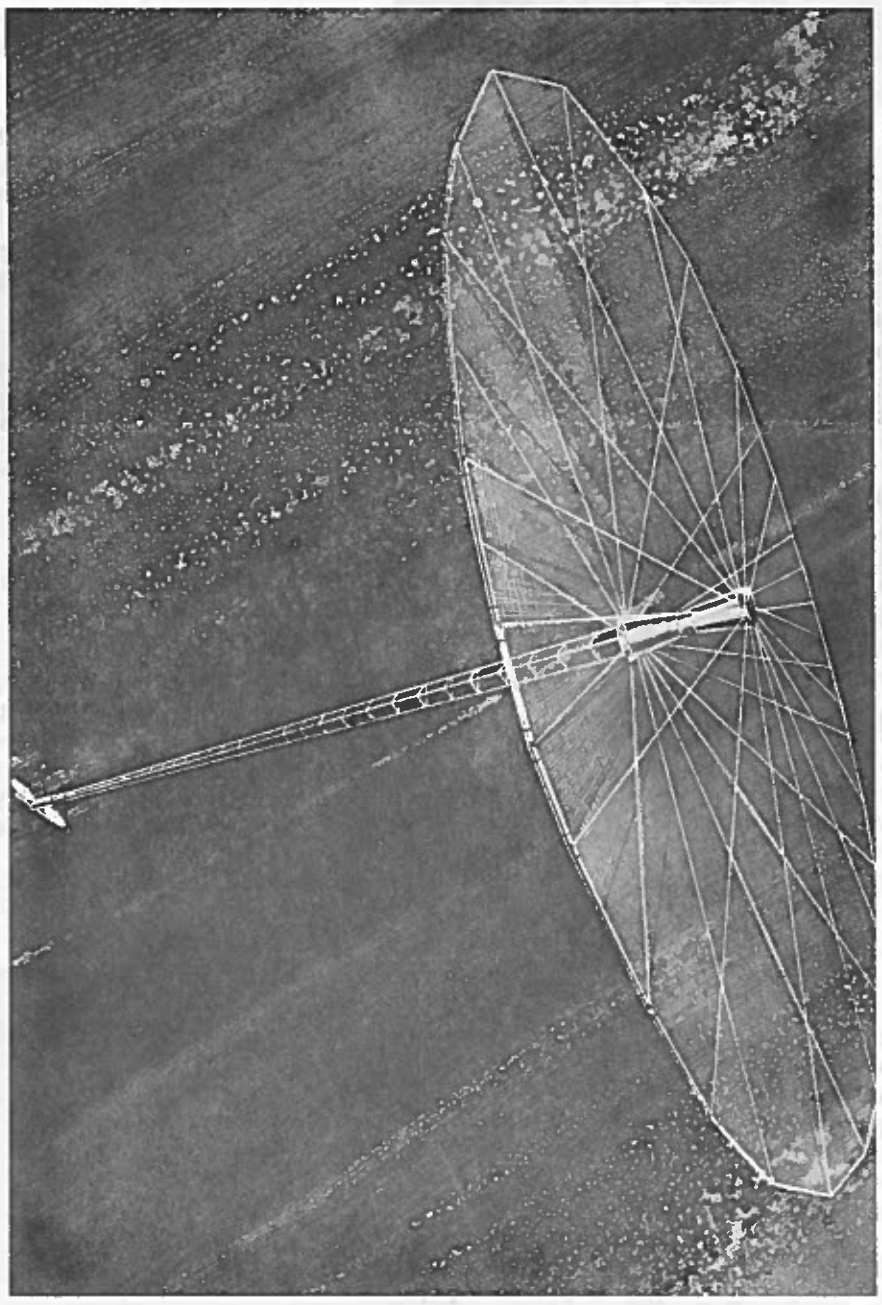
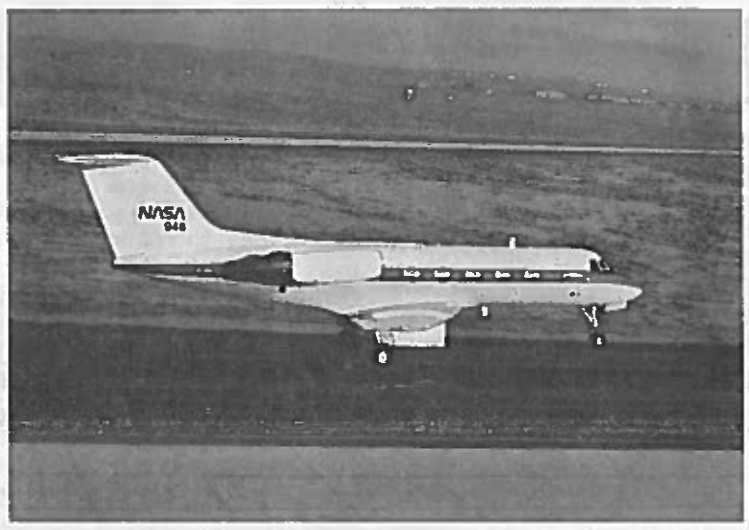
GRUMMAN
plane news

Vol. 42, No. 19, October 28, 1983. Bethpage, N.Y. 11714



An eye in space. *Grumman recently won a contract to study power supplies for the future space-based radar satellite. The above artist rendering is just one Grumman design for a proposed 'wire-wheel' satellite. See story on page 2.*



NASA orders third STA

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LSRs supply vital service to customer

– pg. 6

Space-based radar

GAC wins power-design contract

Grumman Aerospace has been awarded an $870,000, three-year contract for the design of a power processing system for a phased-array, space-based radar (SBR) satellite. The contract is with Wright-Patterson Air Force Base, Aeronautical Systems Division.

Since it would survey the Earth from space, an SBR satellite would give defense forces a clear picture of potential threats in areas not accessible to ground or airborne radar. This would enable the forces to respond very rapidly in times of crisis.

According to John Diglio, SBR program director, the design of an SBR electrical system can dictate the design of an entire satellite, which puts Grumman in an excellent competitive position for obtaining future SBR contracts.

"Since design of the power distribution system involves the entire radar aperture, Grumman is in an excellent position to control the design of the entire spacecraft," he notes. Diglio hopes to see Grumman win an SBR System Definition Study in mid-1984 from the Department of Defense (DOD). "However, the competition will be fierce," he adds.

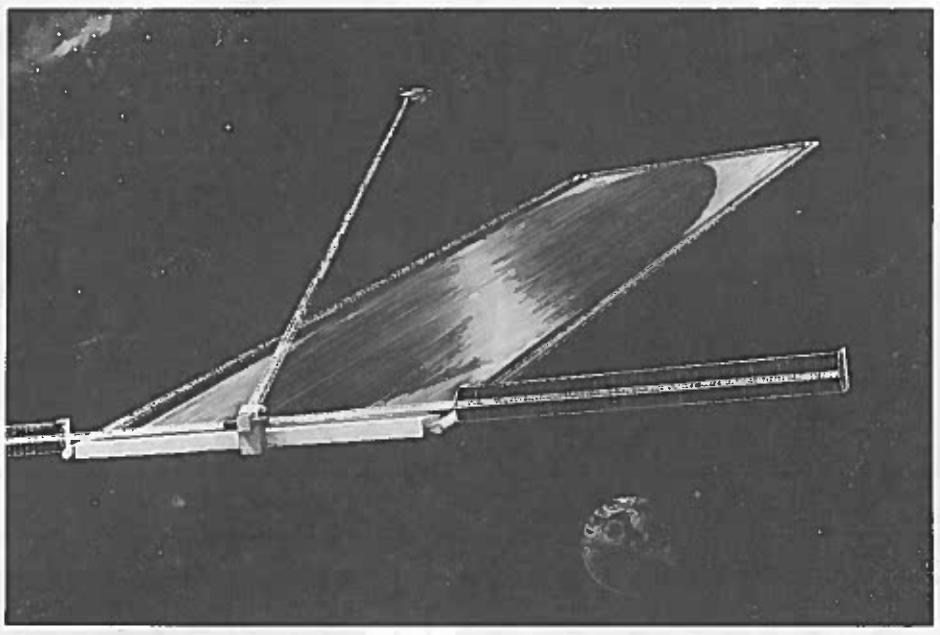
Primary power for an SBR is derived from solar energy. The entire power system would consist of solar cells, batteries, and transmission lines between the batteries and the RF (radar frequency) control modules. Depending upon the configuration that gets final approval, the number of modules on an SBR satellite could range from 30,000 to 200,000, Diglio says.

Martin Marietta has been chosen as the primary subcontractor for the power processing effort. Its subcontract is for conceptual and detail-design work on power processing devices.

According to Diglio, the company has been developing the technology to reduce the perceived risks in SBR designs and make Grumman highly competitive for future SBR contracts. Two designs have been under study. One of the designs has been dubbed as the "window-shade" model, while the other is referred to as the "wire wheel" model.

The nicknames refer to the way each would unfurl after being launched into space from the Space Shuttle — the former like a window shade, opening to a plane measuring 20 by 60 meters, and the latter opening into a circular unit with spokes like a bicycle wheel.

An experiment, developed by Dr. Rich DeIasi of the Research Department, and using structural components from Grumman's radar aperture, will be given a free ride on the Shuttle set for launch in April of 1984.



Keeping watch. *Above is an artist's rendering of a 'window-shade' model, space-based radar satellite. The satellite would be compact when launched and would unfurl in space.*

Two satellite designs

Assuming Grumman gets a contract to develop and build the satellites, Diglio predicts the "window-shade" model could go up into space in the early 1990s, while the "wire-wheel" model would be ready in the latter part of that decade.

Diglio says any future SBR satellite would have to be made of very lightweight materials, since the less it weighs, the farther into space it can be transported. Under the direction of Chris Staebler in the Advanced Materials and Manufacturing Department of Plant 12, work is under way to develop these lightweight materials, as well as automated final assembly procedures. The farther into space an SBR goes, the larger the area on earth it will be able to monitor.

In theory, an SBR satellite would be transported from the Space Shuttle to an operating altitude ranging from 600 to 23,000 miles. At low altitude, Diglio points out, 18 SBR satellites would be required to perform the project mission. But at the higher altitude, he says, missions can be accomplished with only three.

SBR and IR synergism

According to Diglio, the SBR program is also investigating the use of infrared (IR) sensors in tandem with radar.

"An infrared sensor on an SBR satellite gives mission capability that neither sensor alone can provide," Diglio says. The IR sensor can be relatively small and fill the gaps in radar capability.

In addition, there is a lot of growth potential for an SBR. It can be used for both commercial and military applications. Among the non-defense uses of SBR, Diglio lists the following: electronic mail, radiometry (measuring the Earth's moisture to determine agricultural forecasts), some air-traffic control functions, mapping, and iceberg watches.

The Army, Navy, and Air Force have been investigating SBR for years, while Grumman's own involvement dates back to before 1973. Diglio sees a big benefit in having two designs of SBR satellites in the works.

"It shows the DOD community that going with our technology won't be a dead end," he says.

Drive carefully

Celebration of Halloween on Monday, October 31, comes on the heels of an abrupt end to Daylight Saving Time (at 2 a.m. Sunday, October 30).

Motorists will have to contend with earlier darkness — and reduced visibility — at a time when many youngsters will be roaming the streets on their "treat or treat" rounds.

Keep a watchful eye out for Tomcats with two-tails, ETs and hobgoblins.

Good company

Retirees reunited in N.H.

Last month, 65 Grumman retirees and their spouses gathered in Keene, New Hampshire for the region's first Grumman retiree reunion. While Amy Rowland only had to drive three miles to the event, Grumman retiree Bill Ammarill of Maine made the 220-mile trek without regret.

"The Grumman spirit has not died in New England," proclaimed Grumman retiree Al Capra, in a letter to Grumman Recreation. "Aside from the fellowship provided at the luncheon, the group indicated a strong desire to become a social and financial part of the Grumman Retiree Club family."

Representing Grumman at the reunion were Grumman Corporation Vice President and Secretary Bob Bradshaw and Grumman Retiree Club President Bill Wange. Dubbed "Grumman's ambassador to the retirees," George Titterton was also on hand to supply plenty of anecdotes.

Wange promised attendees that a special chapter for retirees living in sparsely populated areas will be addressed at the next Retiree Club board meeting.

If you are a retiree living in New England and are interested in joining such a chapter, drop Bill Wange a line. Write to Bill, Grumman Retiree Club, c/o Grumman Recreation, Plant 28A, Grumman Aerospace Corporation, Bethpage, N.Y. 11714.

GRUMMAN plane news

Published twice a month for the employees of Grumman Aerospace Corporation, Bethpage, N.Y. 11714, as a function of the Public Affairs Department, Brian Masterson, director.

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Grumman begins work on third STA

The National Aeronautics and Space Administration (NASA) plans to add another Grumman Shuttle Trainer Aircraft (STA) to its fleet of airborne trainers.

NASA and Grumman Aerospace have signed a letter of contract to modify a Gulfstream II corporate jet into an STA. "Our response to the RFP (request for proposal) is due November 4," states Tom McGrath, vice president-Subcontracts and Commercial Products. "It will be a sole source contract."

Practice, practice, practice. *Shuttle astronaut pilots have been using two Grumman Shuttle Trainer Aircraft (STA) to practice approaches and landings. Grumman recently began modifying another G-II corporate jet into an STA. (NASA photo)*

Practice makes perfect

Modified by Grumman in the mid-Seventies, two STAs are currently being used by Shuttle flight crews to practice approach and landing maneuvers.

The flight controls and cockpit instrumentation are extensively modified by Grumman to accept the inputs of onboard computers and other equipment that provide realistic Shuttle flight characteristics.

Dead stick landing

When an astronaut flies the STA, he's controlling the craft by the onboard computer. This is programmed to make the corporate jet react like the 100-ton flat-iron-shaped Shuttle, which makes a powerless approach and landing.

The powerless feel of the Shuttle is simulated by flying the trainer with a great deal of engine reverse thrust — often more than 90 percent of engine power to simulate the drag of the spacecraft.

The STA is forced into a descent in which it drops as much as 16,200 feet per minute. The normal rate of 3,000 feet per minute is the routine initial rate for a corporate jet from about 35,000 feet.

The instructor enters simulation data, such as Shuttle weight, center of gravity and landing location, into the computer. He can also enter problems such as equipment failures to train the astronauts in emergency procedures.

Unlike the previous two STAs, the new STA will not feature the distinctive side-force control surfaces used to simulate Shuttle sideward motion. These are located beneath the STA's wing roots. "The demand for these surfaces has diminished," states Bill Gentzlinger, STA program manager. "But the primary reason is safety. If the STA has ever to undergo a 'wheels up' landing, the side-force control surfaces would be a safety hazard. They will be removed from the other two STAs."

The Gulfstream II corporate jet is currently in the teardown stage in Plant 5's Product Development Operations Center (PDOC). "We've begun to release work orders to the shops for detailed parts," says Gentzlinger. The new Grumman STA will be delivered to NASA in early 1985.

Navy marks 208 years; honors 1st female test pilot

Lt. Colleen Nevius, USN, the first woman to become a Navy test pilot, was the guest speaker at a luncheon on October 13 in honor of the Navy's 208th birthday.

About 300 Grummanites turned out for the affair, which was held at the Milleridge Cottage in Jericho and was sponsored by the Grumman-Bethpage Naval Plant Representative Office (NAVPRO).

The right stuff. *Lt. Colleen Nevius, the Navy's first woman test pilot, accepts plaque and flight-test suit at recent Navy luncheon. She is flanked by NAVPRO Commanding Officer Capt. Roy R. Buehler and Executive Officer Cdr. Frederick Blakely.*

In introducing Nevius, Capt. Roy Buehler, NAVPRO Commanding Officer, noted that a high percentage of Navy pilots are first sons. In Nevius' case, she is the eldest daughter of a naval aviator.

Nevius went on to attend Purdue University on a Navy ROTC scholarship, and enlisted in the Navy in 1977. She was selected for flight school in 1978; her father pinned on her wings in February of 1979.

During the first part of her aviation career, Nevius flew vertical replenishment helicopters to aircraft carriers. During that period, women still weren't permitted on board carriers. That was to change — Congress passed a new law allowing women to serve on carriers as temporary duty for up to six months. Nevius and another woman were the first women on board.

That set the stage for Nevius's next accomplishment: becoming the first woman to graduate from the U.S. Navy Test Pilot School in Patuxent River, Maryland.

Among the aircraft Nevius has test-flown at Pax River is the Grumman-built OV-1. She said she looks forward to adding the X-29 to her roster by next year's Navy birthday.

At the conclusion of her speech, Nevius was presented with a plaque of appreciation from NAVPRO and an orange flight-test suit contributed by Grumman.

"It's been fun being the first," Nevius remarked. However, she added that she looks forward to the time when today's children grow up, and there aren't as many restrictions on what women can and can't do.

Stuart ships first 767 extended range center section

The Stuart Operations team recently completed the wing-fuselage center section for the first Boeing 767 "extended range" jet airliner.

For the extended range version, the section has been made into a fuel tank which will enable the huge wide-bodied jet to carry over 12 tons more fuel and fly 1,600 miles farther than earlier 767 models.

Since 1980, Grumman has built and delivered more than 80 units for the basic 767 airplane under a multi-million dollar contract with Boeing. Production is expected to continue for at least several more years.

The structure measures 27-feet long by 16-feet wide and is shipped in a special railroad car to Boeing's final assembly plant at Everett, Washington, just north of Seattle.

The fuel-efficient Boeing 767 airplane entered commercial service in September 1982 and is now operating with 11 major airlines throughout the world.

JTIDS to be installed on E-2C Hawkeyes

Grumman Aerospace recently signed a $125-million development contract with the Naval Air Systems Command for the integration of the Joint Tactical Information Distribution System (JTIDS) into the E-2C Hawkeye.

JTIDS is a sophisticated system of electronic components and software that provides a jam-resistant, secure data link and voice communication system for aircraft, ships, and land sites. The development contract extends through August, 1988. Grumman will probably be awarded a production contract sometime before that, says Larry Michelon, development program manager for JTIDS.

The contract price doesn't include about $5 million already spent during 1983, nor does it include about $5 million worth of options.

Developing software

The JTIDS hardware/software is manufactured by a company called TADCOM, a joint venture of ITT-Nutley and Hughes Aircraft. What Grumman will do under the new NAVAIR contract is develop software enabling JTIDS information to be integrated and utilized by the existing E-2C weapons system.

Michelon says the JTIDS project will primarily be software-related — the only assembly work will be fitting the E-2C with the JTIDS black boxes, and modifying existing subsystems to accommodate JTIDS functions. One obstacle in this regard will be the fact that the E-2C will continue to carry the present data link equipment as well as JTIDS, since it will be a long time before JTIDS becomes service-wide.

The big bonus of JTIDS, as Michelon explains it, is metachannels: JTIDS can transmit or receive signals of two frequencies simultaneously. JTIDS also changes those frequencies in fractions of a second.

"Since the frequencies are constantly changing over a wide spectrum, the enemy has a harder time identifying the frequency you are using," making jamming more difficult, says Michelon. He points out that jamming is still possible, but the enemy would have to jam a much wider area of the radio-frequency spectrum. This would greatly weaken the jamming signal, thereby reducing the distance of its reach and its effectiveness.

Preventing enemy jamming isn't the only benefit JTIDS has over the present data link. JTIDS will make it almost impossible for enemy intelligence operators to eavesdrop or interfere with a transmission.

Greater security

Since information is relayed in digital form, "once the enemy knows your data language, he can come in and either compromise your mission, or utilize the information from a tactical standpoint," Michelon points out. With the signal frequencies constantly changing, an enemy would have to monitor the entire spectrum to obtain both the message and all the language bits. Therefore, Michelon says, the message would be "completely secure."

Presently, the E-2 and E-2C utilize two voice/data links: Link 11, which Michelon characterizes as relatively secure by virtue of its data encryption system; and Link 4, which doesn't use encryption and is less secure.

Two aircraft selected

The E-2C and the F-18 (manufactured by McDonnell Douglas, which has a parallel development contract) will be the first two planes equipped with JTIDS, which is eventually expected to go on line throughout the armed services, NATO, and other friendly foreign nations. Michelon says the first JTIDS-equipped E-2C is scheduled to fly in 1986, while the first deployment — a squadron of four planes — will be in November of '88.

Hughes Aircraft has received a parallel contract to interface JTIDS with an as-yet-unidentified aircraft carrier.

Right now, only the E-3A has JTIDS capability, and it can only communicate with several specially-equipped ground sites. Michelon predicts that forward-fitting of production-line E-2Cs will commence during 1989, while retrofitting existing Navy E-2Cs will start in 1990.

Development work will be done in a new JTIDS laboratory that will be set up in Plant 14. The project will add about 50 new employees to the Grumman work force.

Grumman's involvement with JTIDS dates back to 1976, when the company won a study contract to explore the feasibility of equipping the F-14 and E-2C with JTIDS. For the initial effort, the F-14 integration has been postponed. Michelon says F-14/JTIDS integration will probably begin around 1989.

Personals

Thank you sincerely for your thoughtful kindness at a time when it was deeply appreciated. William Foshay

On behalf of the Ciminera family, I wish to thank all of my friends and associates at Grumman for their kindness and prayers during the loss of my father. Michael Ciminera and family

On behalf of my children and myself I would like to thank our many friends at Grumman for their kindness and sympathy during the recent loss of my husband. Kathy Pulcrano

I would like to convey my most sincere thanks to my friends and coworkers at Grumman for their expression of sympathy and to management for their understanding and support during the long illness and loss of my wife. Marcel Piry

On behalf of my family, I would like to thank all my Grumman friends and coworkers for their support and expressions of sympathy during the recent loss of our mother. Anthony DiMartino

My family and I extend our sincere thanks to our many friends at Grumman for their kindness and thoughtful expressions of sympathy. It was a warm consolation during the loss of my wife. Nicholas Tallarico

Carpools

Lindenhurst to Bethpage: 8 AM to 4:30, Join existing car pool. H. Baker, Ext. 2856 or 957-8301 eves.

Bethpage to Huntington Pl. 40: 7:48 to 4:12 PM, J. Bonanno Ext. 3767.

Electronic revolution

IRM exploits advances in business technologies

An electronic revolution is sweeping America. Three business technologies — computers, telecommunications and office equipment — are merging rapidly. To better utilize these technological advances, Grumman Aerospace formed a new department called Information Resources Management (IRM).

"After conducting studies of our competitive position in the aerospace industry, it became evident that changes had to be made in how we handle our information network," states Tom Kelly, vice president-IRM. "While some of our systems are excellent, others good . . . there are areas that are lacking."

Perfect timing

Merging the three departments — Corporate Systems, Communication Systems and Office Automation — into IRM could not have come at a better time. Kelly points out that a big slice of the corporation's $300-million modernization package is earmarked for information systems and factory automation. "Creating IRM permits sharper management focus on this rapidly growing field," he says.

"In essence, Grumman is investing in everyone's job," states Kelly. IRM's sphere of influence can be felt in just about every corner of the company. For example:

- Hundreds of Grummanites use the computer-aided design and computer-aided manufacturing (CAD/CAM) system every day. These users hail from engineering, procurement and manufacturing fields.
- A growing number of telephones are hooked up to the new company-owned telephone system.
- The demand for word processors and personal computers is at an all-time high. It's become the top priority for many departments.
- Computers are the mainstay in business operations for numerous departments . . . from payroll operations to flight test to personnel.
- Now on order, the Cray-1 supercomputer — one of the world's fastest computers — will more than double Grumman's computing power. Engineers and scientists will be able to solve large analytic problems at lower cost, with increased reliability and higher quality than today's computers.
- IRM is also working closely with the Tech Mod personnel in Manufacturing on factory automation systems such as robotics.

It's only the beginning

Kelly predicts that the next three to five years will be boom years for the business technologies.

One activity to watch is telecommunications."With new phone systems, the traditional analog telephone system will be enhanced by digital systems," says Kelly.

Since Alexander Graham Bell invented the telephone a century ago, the phone has sent the voice over the wires in analog wave forms. Today's technological equipment makes it more economical and efficient to change the voice waves into digital pulses immediately inside the phone unit,then transmit it over the lines in digital pulses (just like a computer), and then reconstruct it in the earpiece on the receiving end.

"That technological breakthrough allows anything to be carried over the phone lines . . . including both voice and data," he states. "You can have a computer terminal wherever there is a phone. No more special wires for terminals. With a single phone wire, you can hook up to any computer you have access to in the company."

Kelly cautions that "there still are limits, but the definite trend is to readily link voice and computer terminals in an interlaced network."

Another interesting technology fallout is that the cost of terminals and communication equipment are dropping all the time. "We are approaching the crossover in price between the typewriter and the personal computer."

"We've got a real revolutionary situation developing," says Kelly. Because the cost is coming down very rapidly, it's now reaching a point where businesses can consider and justify computer-based technologies. They are no longer out of the question.

For instance, a few years ago, computer terminals carried the hefty price of $20,000 to $30,000 each. At that price, the company could afford relatively few terminals and it had to schedule the computer terminals so that they were being used continually to justify the cost.

"Now you can purchase a terminal for as low as $1,000," explains Kelly. "No longer is it worth a person's time to stand in line to use it. You can purchase a terminal and not worry if it's busy all the time.

"It's just like a typewriter. Because of its relatively low cost, you are not concerned if it's running all the time."

On the ground floor

"Forming IRM has come at the opportune time for the company to exploit these latest business technological advances," states Kelly. "We'll be able to lay out plans that will enable us to give Grumman Aerospace the most modern information systems available."

calendar

ASHRAE: Tues., Nov. 8, Linden Tree Restaurant, 6 p.m. Technical/Social program. Guests welcome. A. Rubenstein, 391-5431

Model Railroad Society: every Wed., 7 p.m., Recreation bldg. Regular meeting. Guests welcome. R. Muntz, Ext. 6865

Magic Club: last Wed. of every month, The Magic Shop, Mid-Island Plaza, Hicksville, 4:45 p.m. Guests welcome. G. Albright, Ext. 5782

Roller Skating Club: every Thurs., Levittown Skating Rink, 7:30 to 11 p.m. Lessons 6:30 to 7:30 p.m. Guests welcome. H. Denen, Ext. 2291

Stamp Club: First three Wed. of every month; 5-6 p.m., Pl. 35 cafeteria; trading sessions and discussions. S. Hoops, Ext. 3926

Table Tennis: every Thurs., Pl. 24, 5 p.m. and every Fri., Recreation bldg., 5 p.m., also every lunchtime. Beginners and guests welcome. B. Fabricant, Ext. 9307

Tap Dancing Club: every Mon., Recreation bldg., Beginners; 4:30 to 5:30, Intermediate; 5:30-6:30 p.m. Guests welcome. P. Tropea, Ext. 2260

Toastmaster Club: every Wed., Plant 30, first floor conference room, pole E3, 5-7 p.m. Grumman employees only. A. King, Ext. 6779

IRM moves into Plant 105

Two weeks ago, Information Resource Management (IRM) moved into new quarters in Plant 105. The plant is located on Route 107 across from Plant 5.

It is only temporary quarters for the IRM team. One year from now, it will be moving into the new office building now under construction at 1111 Stewart Avenue in Bethpage.

"The new general office building will be an excellent location for us," says Tom Kelly, vice president-IRM. "We will be right next door to Grumman Data Systems. We are the formal contact with GDS for Grumman Aerospace.

"In addition, we will be across the street from the new Technology Center," continues Kelly. "And, in the basement of the new building will be the major telecommunications switching center for Grumman."

While it is only a temporary home for IRM, Plant 105 does allow the new department to consolidate its major departments under one roof.

Among those newly appointed directors who have moved into Plant 105 are: Julius Cohen, IRM technical director; Frank Ortolani, director, IRM Information Processing; Patrick Valenti, deputy director, IRM Information Processing; and Albert Zoitke, director, IRM Communications and Office Automation.

Theatre tix

Employee Services (ES) offices have an assortment of theater tickets available. Here is just a sampling:

Broadway — "Zorba," Wednesday, December 28, matinee, $30; "Christmas Show" at Radio City, Thursday, December 29, 2:30 p.m. show, $14.50; backstage tour of Radio City, Thursday, December 29, 12:45 p.m. (one hour tour), $4.50; "42nd Street," Saturday, November 5, matinee, $32.50.

Valley Stream Theatre — "Wizard of Oz," Friday, November 25, 11 a.m., and Sunday, November 27, 12 noon, all $4.50.

Intrepid Museum in New York City — Adult tickets, $5; children, $2.50.

All sales are final; make check out to: Grumman Employee Services.

Lost Eagles, unite

"Once an Eagle, always an Eagle." The National Eagle Scout Association of Suffolk County Council has launched a campaign to enroll all Eagle Scouts, regardless of age.

If you'd like to join this Eagle Scout chapter, write to: Bert Mitchell, Chapter Chairman, NESA, Suffolk County Council, BSA, 7 Scouting Blvd., Medford, N.Y. 11763, or call (516) 924-7000.

Don't forget to turn your clocks back one hour before you go to bed Saturday night, October 29.

Grumman LSI

When a Navy aircraft carrier goes to sea, it brings with it a small contingent of civilians in addition to the 5,000-plus Navy personnel on board. Among them are a handful of Grummanites whose presence is vital to the flight readiness of Grumman-built Navy aircraft: logistics support representatives, or LSRs.

The LSRs make up about one-third of Grumman's Field Operations Department. They work out of 27 Grumman field offices at major defense installations, and are also expected to take carrier assignments ranging from several months to over a year at sea. Since Grumman's biggest contract is with the Navy, the majority of these are Navy sites, but there are LSRs at Air Force and Marine Corps bases also.

The LSRs job is primarily supply-oriented — channelling the correct replacement parts to the customer. The goal is to ensure that Grumman planes aren't grounded for undue lengths of time. LSRs also provide supply-related assistance for Grumman ground support equipment.

The LSRs form a well-functioning, responsive network whose role goes beyond "box kicking," says Mike Gajdos, manager of Logistics Operations. Gajdos coordinates the network from his Plant 5 office.

"Years ago, LSRs were looked upon as 'parts pushers'," Gajdos says. "That's not true anymore." Now, an LSR has to be an expert in the makeup of modern aircraft, simply because the planes themselves have become extremely complex.

The outcome: Grumman aircraft have an excellent flight-readiness record, the customer is kept satisfied, and, ultimately, the company sells more planes and other defense systems.

"We have a good reputation with the Navy," Gajdos says about the company's biggest customer. "Keeping it is an ongoing job."

"The better we look, the more planes we

Rs help keep the customer satisfied

Brad Clark

Jack Jarrett

sell," agrees Bill Garvey, Logistics Support coordinator for Grumman at Oceana Naval Air Station, Oceana, Virginia.

"Their services are immeasurable," comments Navy Lt. Mick Meckler of NAS-Oceana Program Management Branch Office, who works closely with Garvey. "We can really rely on their knowledge."

Rapid response

Both Gajdos and Garvey explain that LSRs aren't on-site to perform the customer's supply duties. They are called in for assistance when, for a myriad of reasons, the required parts aren't available through that customer's own supply system.

For example, an NAS may have exhausted its own supply of spares of an item. LSRs will then pursue a variety of routes to get it in a speedy time frame. The LSR can obtain it from a stock of Grumman-owned parts kept at major sites. If it's unavailable locally, the LSR can screen LSRs at other field sites, or contact Gajdos, for assistance.

Often, based on his extensive knowledge of the equipment and associated publications, an LSR will advise that an almost-identical part may be substituted. In some cases, only a subsystem will require replacement, in which event the LSR will know what subcontractor to contact to obtain it. Contacting Grumman headquarters is done after exhausting all other means, Gajdos notes, since the part has to come off the production line, slowing down the production process.

Because they function as a network, and are Grumman employees, LSRs have a big advantage: an "inside track" to the company. This enables them to obtain what's needed a lot faster than if the customer attempted to do it themselves.

"If we call them (Grumman headquarters) up for a part, we'll get a price quote and they'll say, 'O.K., thirty days,' " Meckler notes. "Bill (Garvey) can call them up and get the part right away."

Trend analysis

But getting the part is only an interim solution — a vital part of the LSR's job is to assess usage trends. If, for example, an actuator breaks down repeatedly, the LSR will find out whether his counterparts at other sites are having the same problem. He helps determine the cause — which could be poor maintenance or an inherent design characteristic of the part.

Harry Stanko

Frank Borowski

A big responsibility is providing the Navy with advice as to what parts and sub-parts must be included on the AVCAL (Aviation Consolidated Allowance List) for a carrier deployment. Most of these are high-budget items. For example, Gajdos points out that an actuator can cost $70,000. Due to budget and space constraints, the Navy can't take too many spare parts to sea. It relies on the LSR to identify "never-out" parts, the number of each required (based on breakdown trends), and what should be assigned to the rotatable pool — a list of parts that can be repaired on board.

On the high seas

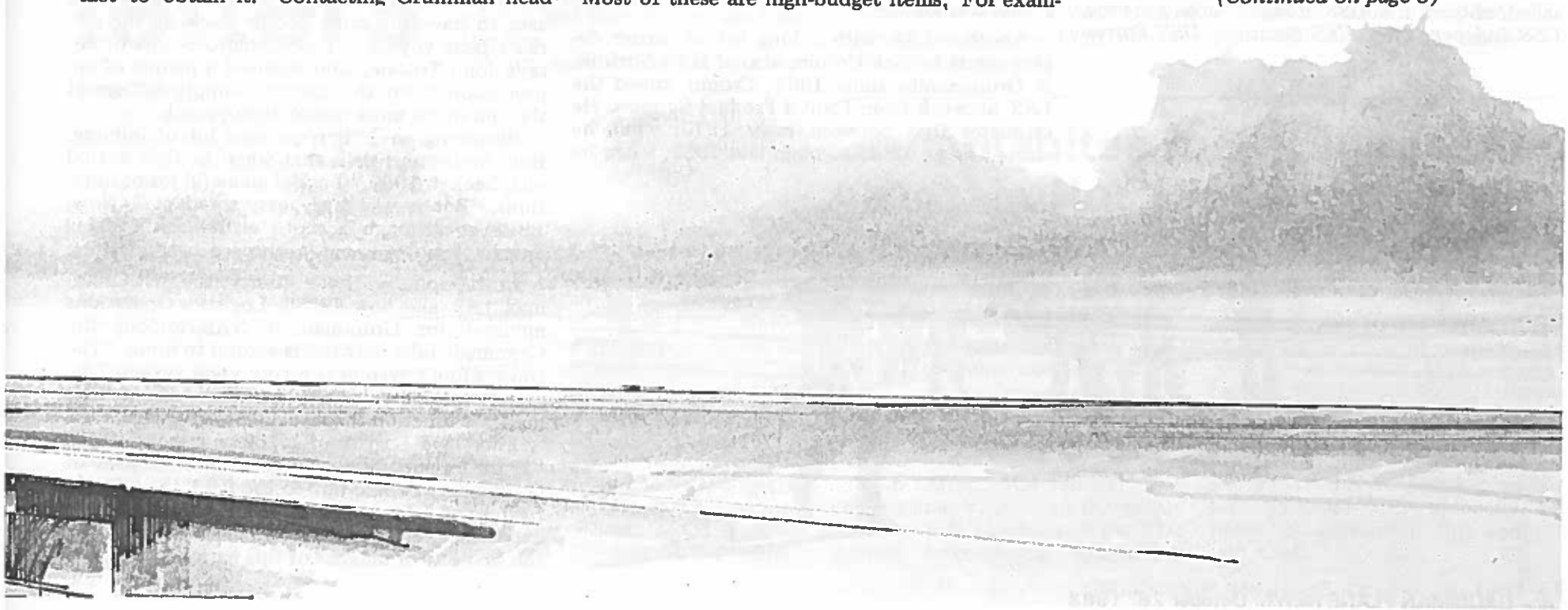
There are at least two LSRs aboard every Navy carrier that goes to sea: one specializing on the F-14, and a multi-aircraft LSR. Additionally, there are about 20 other Grumman Field Ops. personnel, mostly technicians, as well as people from other contractors. Gajdos points out that 85 percent of a Navy carrier's deckload is Grumman aircraft.

Bill Garvey

Dick Cronin

The Navy aims for "zero-percent cannibalization" and 100 percent, full-mission capability for deploying squadrons. Cannibalization refers to taking parts off other aircraft to satisfy critical supply demands. During the past five years, this goal has been achieved in excess of 20 consecutive Air Wing deployments. In addition, Gajdos adds, they've also not had a SPINTAC (Special Interest Aircraft, one that's down for over 60 days) for parts problems for about nine months.

(Continued on page 8)



Logistics

(Continued from page 7)

Since the job requires knowing both aircraft and the Navy supply system, and periodic stints at sea, few are qualified to become an LSR (or want to). The majority of Grumman LSRs are either ex-Navy men or ex-Marines, while others were recruited from Bethpage — typically from supply or material functions. A small minority came from other companies.

Carrier assignments are rotated, but a significant number of LSRs volunteer for them. One LSR who loves going to sea is Chuck Ducharme, who completed a 13-month voyage in June, aboard the *USS America*, and is eager to go again. An ex-Marine, he has been with Grumman for just over two years, and is now assigned to the Aircraft Intermediate Maintenance Department (AIMD) at NAS-Oceana.

"I hate eight-to-four, is what it boils down to," he says. At sea, it's just the opposite — there are 12-to 20-hour work days and an LSR is always on call.

Ducharme says his wife got used to him being away while he was in the Marines. He also says that during a standdown (when a carrier docks in port for up to two weeks), she often flies over to visit.

"If you don't want to ride a ship, you don't belong in Field Ops.," Ducharme attests.

John Totone, a Grumman LSR since 1976, has completed two deployments: he was assigned to the first, and volunteered for the second. He came into the network from Integrated Logistics Support in Bethpage, and views the job as a highly-specialized one.

"There is no way someone can come in off the street — I don't care how intelligent and educated he is — be assigned to a Navy carrier, be told 'help these people,' and do it right," asserts Totone, who works at NAS-Norfolk presently. In addition to knowing Navy supply, he says an outgoing, diplomatic personality is vital, since an LSR has to deal with many levels of Navy personnel.

At sea, there's little time for boredom

The LSR's job on an aircraft carrier is hard work — and being away from home for 12 months at a time isn't easy either. But since the typical work day at sea can last from 12 to 20 hours, there's little room for boredom.

Depending on where the sleeping quarters are located, the LSR may have to get accustomed to sleeping through a lot of commotion — especially the noise of planes taking off and landing at all hours. And while they're not cramped, the sleeping quarters are dormitory-style.

Most of the LSRs interviewed by *Plane News* feel civilians on board are treated well. There is occasional civilian/non-civilian tension, but Lt. T.D. Stine of the *USS Independence* attributes that to the long work hours required of everyone. All in all, there's a lot of camaraderie on board, and many LSRs maintain close friendships with Navy people when they get back home.

The best part of a carrier deployment, many would agree, is the opportunity to visit foreign nations. "I've seen the world many times over," comments Dick Cronin.

Seeing the world also means being there when important world events occur. Cronin once traveled to Viet Nam during the conflict there, and also was aboard the *Nimitz* in 1980 during the failed rescue mission of the American hostages in Iran. The helicopters that crashed in the Iranian desert took off from the *Nimitz*.

LSRs are required to be ready, willing, and able to go to sea at all times — they must pass a comprehensive physical every year, and keep their passports up to date. On occasion, an LSR will become acutely ill at sea, whereupon another LSR will be called in to substitute, often on very short notice.

Bill Garvey of Grumman/NAS-Oceana notes that very few LSRs leave Field Ops., indicating a high degree of job satisfaction.

Years at sea

Bill Fink, an LSR at NAS-Norfolk, is one Grummanite who has logged many years aboard aircraft carriers. Between 1965 and 1976, Fink sailed aboard the *USS Ranger*, *USS America*, *USS Independence*, *USS Saratoga*, *USS Forrestal*, and *USS John F. Kennedy*.

Fink views going to sea as a great challenge. "You get the best job satisfaction there," he says. "You're in the real world, and you can see things actually happening."

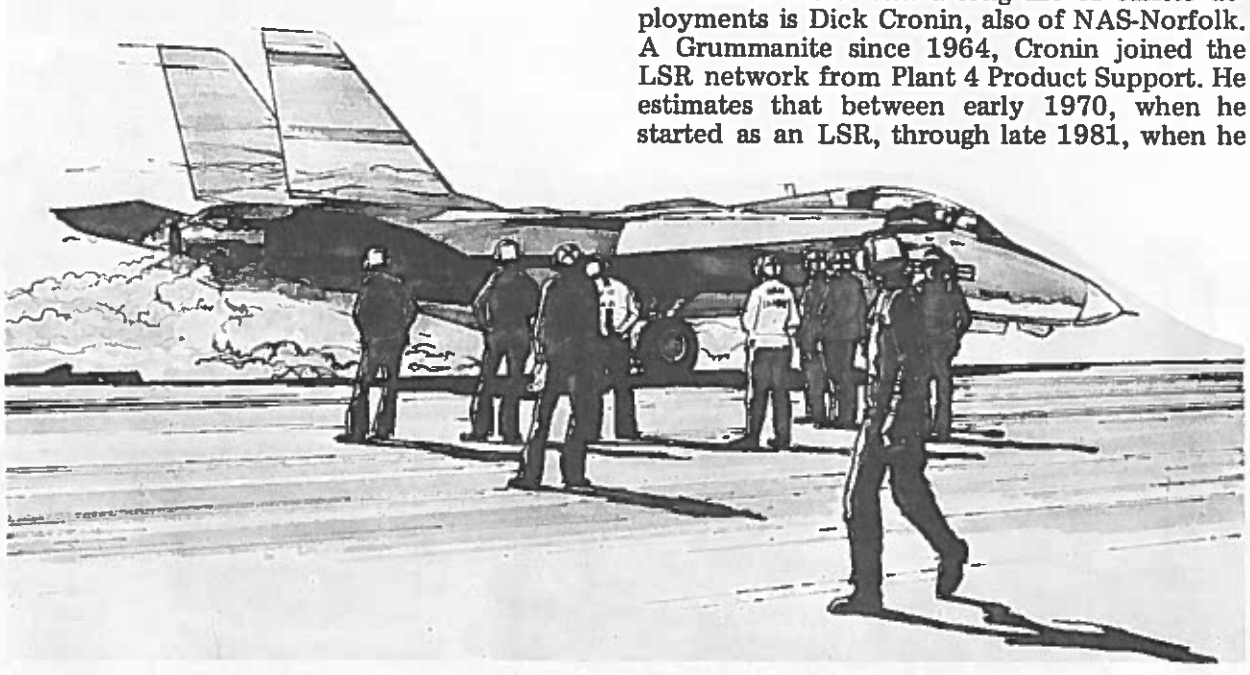
Fink took advantage of the opportunity to buy goods overseas, such as works of art and fine crystal, that he might not have been able to afford at U.S. prices. And going to the Mediterranean gave him chances to visit friends he made while he was in the Navy and the Marines during the late '40s and early '50s. But being separated from his family was a hardship, he recalls, especially since his children were small when he went overseas.

Both Fink and Bob Anderson, senior LSRs at NAS-Norfolk, have been on carriers that were involved in major crises. On Fink's last deployment, the *Kennedy* was rammed by the U.S. frigate *Belknap* off Sicily and caught fire. There were three casualties aboard the *Belknap* and one on the *J.F.K.*

Anderson was aboard the *USS Forrestal* in 1967 when it caught fire offshore of Cubi Point, Phillipines. One hundred thirty-four people died in that tragedy.

Another LSR with a long list of carrier deployments is Dick Cronin, also of NAS-Norfolk. A Grummanite since 1964, Cronin joined the LSR network from Plant 4 Product Support. He estimates that between early 1970, when he started as an LSR, through late 1981, when he left the *USS Nimitz*, he logged closed to 12 years of back-to-back sailing. Cronin volunteered for all the deployments.

Lt. Mike Drain of NAS-Norfolk (ComNavAirLant) views the relationship between Grumman LSRs and the Navy as a positive one. In his opinion, the LSRs are highly effective at what they do. Drain also notes that, since many LSRs are former servicemen, "they can relate to the problems Navy people have with the supply system."



Good cooperation

T.D. Stine, a Chief Petty Officer aboard the *USS Independence*, which left Norfolk on the 20th of this month, said in an earlier interview that when he first worked with an LSR 10 years ago, he "wasn't overly impressed."

"As I've become more aware of the system, and what LSRs do, I've grown to respect them a lot," Stine commented. Two Grumman LSRs are on board the *Independence*: Larry Buchanan, an F-14 LSR, and Brad Clark, a multi-LSR.

The good job LSRs do becomes evident when a Navy commander, after returning from sea, asks to have the same people back on the carrier's next voyage. This scenario occurs often, says John Totone, who received a plaque of appreciation from the carrier's supply officer at the end of his most recent deployment.

Becoming an LSR requires a lot of training. Bob Anderson recalls that when he first started out, back in 1959, "I asked an awful lot of questions. But it was fairly easy to adapt." Now, LSRs go through a six-to eight-week training program at Grumman Aerospace headquarters.

In the opinion of Joe Cherry, the first Grumman LSR and now Carrier Logistics Operations manager for Grumman at NAS-Norfolk, the Grumman LSR network is second to none. "The Navy supply system is a very good system," he maintains. "We're the extra ingredient that makes it function that much better."

Fink says Logistics Support is a great career. "If the opportunity affords itself to anyone at Grumman to come out to the field, they should rush to it," he asserts. "It's a very rewarding experience, and you're really aware of being on the first line of defense of this nation."

New 757 spoilers shipped to Boeing

MILLEDGEVILLE, GEORGIA — The Grumman team recently delivered the first shipset of new lightweight 757 spoilers to Boeing Commercial Airplane Company eight days ahead of schedule.

In February 1982, Boeing signed a contract with Grumman to begin building new, lightweight composite spoilers for its latest commercial airliner, the 757. Aircraft Number 32 was determined to be the cut point for the new design. As Bill Brown, Grumman 757 program manager says, "It was an interesting challenge to design, build and transition to the redesigned spoiler configuration all without a break in current production."

The ultimate result produced redesigned spoilers that achieved weight savings in excess of 53 pounds per shipset for the new fuel efficient Boeing 757, states Brown,

The 757 composite spoiler contract is for 200 shipsets (12 spoilers per shipset) plus options for an additional two hundred shipsets. It is currently the largest-dollar-value commercial subcontract at Milledgeville Operations.

With support from Bethpage Tool Design and Fabrication personnel, the Milledgeville team delivered the first shipset late last month — eight days ahead of schedule.

In recognition of this achievement, Boeing presented Grumman Aerospace with a brass plaque in appreciation of the team's performance.

A job well done. *Boeing's John Stroup (L) and Wil Gaulin (R) present Bill Brown, Grumman's 757 program manager with a plaque commemorating the Grumman team's outstanding delivery performance at Milledgeville Operations in Georgia.*

People in the news

Nothing like experience. *Hawkeye Flight Test pilots Julius Longshore (C) and Gerry Haser (2nd R) recently received 2,000-hour plaques from E-2 Flight Test manager John Koszeghy (L), Flight Test director Dick Mazourek (2nd L) and Ken Koehler, E-2 program deputy director. It takes four to five years for the average fleet pilot to surpass 2,000 hours of flying; Grumman test pilots average about 300 hours a year.*

Return of a hero. *Congressional Medal of Honor winner Tony Casamento made a return appearance at the Grumman Disabled American Veterans Club annual dinner. With him is club president Paul Conde of Plant 3.*

letters

Dear Editor,

I guess every person employed at Bethpage has at one time or another been to McKay Field. I have never met anyone who could tell me whom the field was named after.

After one evening wore down and a few beers were consumed at McKay Field this summer, I heard the following:

- The field was named after big two-fisted Jim McKay who flew Grumman fighters during World War II and became an ace.
- He was the last chief of a Bethpage Indian tribe and was buried at an unmarked site on the field. If you listen carefully, you can hear him sighing after sundown.
- He used to mow the lawn for Grumman. As Grumman grew, so did the lawn. Alas, he keeled over one day and they named the field after him.

Whom was the field named after?

Thank you.

George Meltzer
Plant 2

The field was named after William McKay, director of Administration during the early Sixties. McKay began his Grumman career in 1932; he died in 1964. McKay assigned the area to the folks in the Maintenance Department in the early Sixties, so they could play softball and have picnics after work. The field proved to be quite popular. Every night this past summer, Grumman departments used the field for evening picnics; during lunchtime, Food Services sponsored "Picnic in the Park."

Grummanites make suggestion program No. 1 in aerospace

Grumman Aerospace's Motivational Programs Office added another plaque to its wall of citations and awards. The National Association of Suggestion Systems (NASS) named Grumman as the aerospace group winner for achieving the "Highest Savings Per Employee" during 1982.

John Alvar, Motivational Programs manager, received the plaque at the awards luncheon of the 41st Annual International Association Conference held in New Orleans in early October.

In 1982, Grumman Aerospace averaged $377 in savings per employee, significantly above the national average of $110 per employee among all firms, organizations, and agencies that reported savings.

"All Grummanites who participated in the Project Sterling Suggestion Program can rightfully be proud of sharing in this honor," said Alvar.

work

It's one-third of your day for probably 45 years of your life. You love it, hate it, can't wait for Mondays, or just live for Fridays. It gives meaning to your life, or maybe it's just a way to keep food in your stomach and clothes on your back.

Whatever work means to you, it's definitely part of the way you define your place in the world.

In the latest in a series of interviews in which Grummanites talk about work, Madelyn Lee of Plant 77 talks about her job at Stuart Operations in Florida.

I'm a structural mechanic. Back during World War II, I joined the Navy. They gave you a batch of tests to see where you'd fit in. I was hoping to get into athletics, but the results showed I was mechanically minded.

So I went to work as a mechanic's mate at NAS San Pedro in California. We preserved Grumman Hellcats there for shipment to the Pacific frontlines. I'd do ground checks, take the plugs out of the plane, tape over all the open areas to prevent salt water from getting in and then tow the planes down to the carriers and load them.

After leaving the service, I soloed in 1947 in Detroit after only nine hours of training. I used the G.I. Bill for my lessons, but then the coverage for flying lessons was dropped. I haven't flown an aircraft since.

I've always had different types of jobs. I drove a cab, repaired jewelry and watches, served as a chef, drove a city bus, bartended. You name it.

Several years ago, I was working as a chef at the Acey Deucey Club at Pt. Mugu. I got to know these Grumman fellas who worked the night shift. I'd deliberately hold off closing the place so I could feed these guys. They did nothing but talk about how great Grumman is to work for. They kept encouraging me to apply for a job; finally, I did.

I worked on F-14s. I made safety inspections, applied sealants to fire protect the plane, and did assembly rivetting. I got one of the first FOD (Foreign Object Debris) jackets given out at Pt. Mugu. I still wear it. You'd be surprised at what you'd find in an aircraft . . . cigarette butts, a forgotten screwdriver, coins . . . Looking out for FOD is still a very important part of my job.

I moved to Stuart in 1981. It was quite a move, clear across the country. I sold my home in California, drove across the U.S.A. in my van and bought a new mobile home here. Unfortunately, I had to sell my motorcycle. I used to like riding to work on it. But the community where I bought my home didn't allow motorcycles. I bought a station wagon. There's plenty of room for my fishing gear, softball stuff, and all the other things I carry around.

Right now I'm working on the OV-1 Mohawk Program at Stuart. We tear down older Mohawks and modify them to the latest configurations. There is nothing like seeing the plane you tore down a few months ago fly out of here looking like a brand new plane.

Sure it's different than working on an F-14. That's a very sharp looking plane. But the Mohawk is special, too. The guys tell me that this modification line at Grumman has kept alot of folks working here at Stuart. We do a good job of taking old planes and turning out new ones.

'Some might find it hard to accept that a 61-year-old grandmother knows how to work on aircraft structures.'

When the Mohawk comes in here, you can reach into a wing structure and find anything and everything . . . bird nests and all. There isn't one area that we don't check for FOD. The Army gets a super plane when we get done with it.

Everyone has to have his own tools, and I'm a nut about tools. At Pt. Mugu, I bought an old rollaway from one of the guys and spray painted it gold. When I transferred to Florida, they told me, "They will never let you in Florida with that rollaway." Sure enough, when I got here, someone had put a "For Sale" sign on it.

What's all the fuss about?

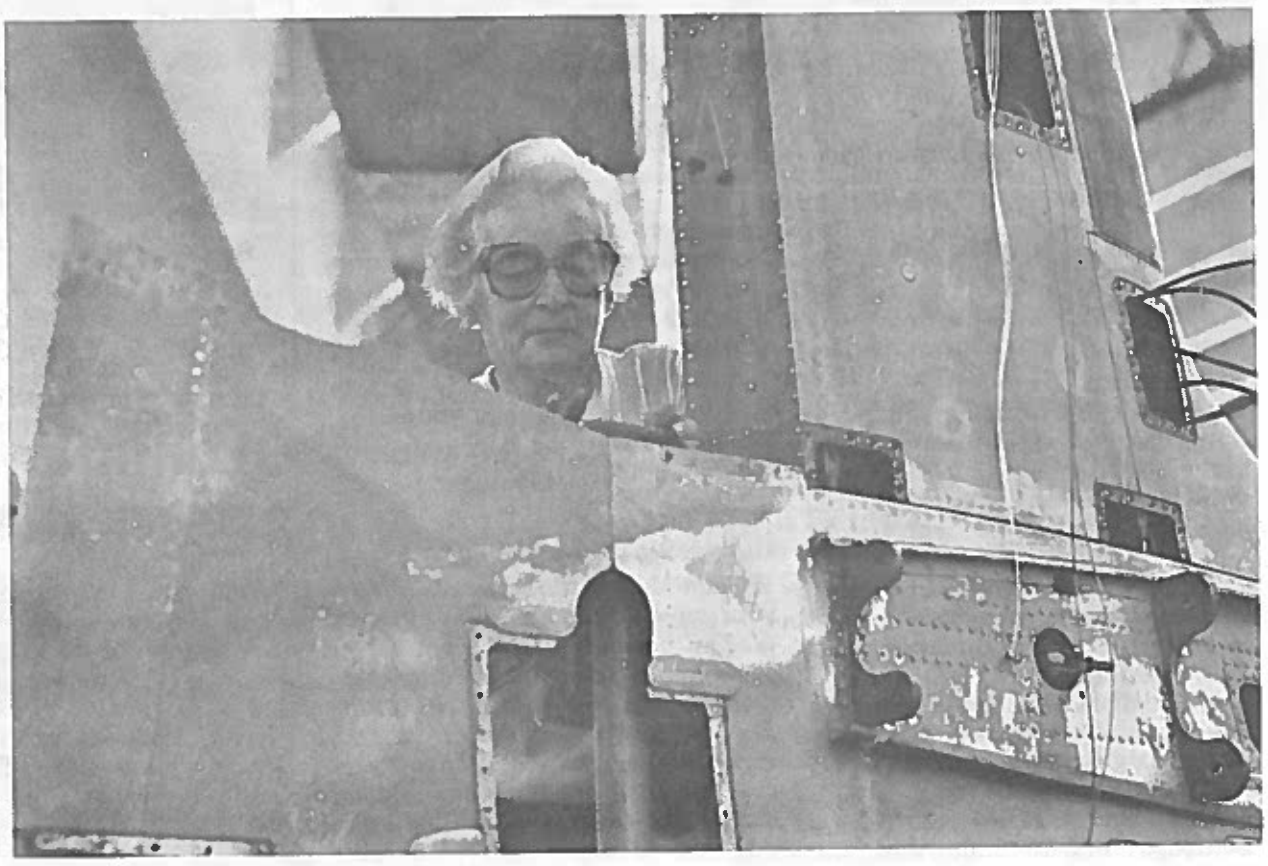
I honestly don't understand what all the fuss is about when it comes to women in what people call "non-traditional" jobs. I've always had "different" kinds of jobs. But I really believe that a person should get paid the same amount of money if they are doing the same job. I only regret that I didn't start my career as a structural mechanic earlier.

I've never had trouble working with men. If the guys don't care for someone then they ignore that person. For instance, if they kid you . . . they don't intend to be mean. They are joking with you just like they do with the other workers. And I give it right back.

Sometimes I have to teach younger guys how to do a job because they are new to the program. Some might find it hard to accept that a 61-year-old grandmother knows how to work on aircraft structures. But it's a snap for me now. It's important that you pass on what you've learned to the younger people. I enjoy doing that.

We are all team players on the Mohawk program. It's great here at Stuart . . . people working together to update an aircraft. You're on a winning team . . . sticking together to get the job done right. I can't believe at my age that I'm part of all this. It's great.

Editor's note: *Madelyn is currently on a medical leave of absence. On behalf of her co-workers and fellow Grummanites, Plane News wishes her a speedy recovery.*



At home. *Madelyn Lee left the aviation world after serving in the U.S. Navy during World War II. After holding a number of 'non-traditional' jobs, she's back once again working on Grumman planes. 'I only regret that I didn't start my career as a structural mechanic earlier,' says Madelyn.*

Got your new badge?

Do you still wear your old red Grumman badge? Time is running out. Only the new blue badges will be honored after November 2, 1983.

Those Grummanites who have not changed their badges should stop by the Plant 18 Guard Headquarters building on South Oyster Bay Rd. and have their photo taken. If you have any questions, call Ext. 4184.

L. Polidora

M. Gigliati

J. Sokolow

L. Belanger

E. Hazard

P. Di Marzo

E. Capobianco

E. Wisnewski

G. Nardone

service milestones

J. Stapleton Jr.

R. Seybel

F.Brancaccio

R. Takach

P. Amoroso

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Joseph C. Frisino, Mfg. M/S (2)
Frank L. Sapone, Repair Cntrl. (17)
George C. Stephani, Mfg. Sched. (30)
Peter J. Obedzinski, Des. Supp. M/S (35)

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Frank J. Kopyta Jr., Controls (2)
Nicholas A. Williams, Weld. Group (2)
Jean E. Oakley, Mach. Shop (2)
John P. Bierschenk, Mfg. Plnng. M/S (2)
John M. Miller, Jigs & Fixtures (2)
Richard M. Knoll, Jigs & Fixtures (2)
John Z. Tenke, Model Shop (5)
Vincent J. Priebe, Ops. Anal. (5)
Michael J. DeLuca, Invent. Cntl. (6)
Joseph F. Eltman, Career Ed & Dev. (39)
Arthur T. Fagan, Paymaster (111)

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Walter H. Zirk, Trans-Ops. (3)
Harry F. Bodnar, Ops. Anal. (5)
Alfred F. Denton, Plastic/Plaster Tooling (11)
John J. Cummings, ILS Pub. Mgmt. (15)
Robert Tallman, Envir. Cntrl. Des. (35)
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Louis Polidora, Drop Hammer (2)
Mario M. Gigliati, Mech. Struct. & Proto (2)
Julius Sokolow, Prod. Eng. (2)
Louis P. Belanger, Maint-Rearrange. (2)
Edward A. Hazard, Convent. Machs. (3)
Patrick F. DiMarzo, Prod. Superv. (3)
Eugene H. Capobianco, Indust. Eng. (3)
Edward Wisnewski, BPA Mach. Parts Insp. (3)
Gerard A. Nardone, Struct. Test (5)
Thomas E. Griffin, Prop. Sys. (5)
William Kirchberger, Proj. Plnng. (5)
Robert E. Papsco, Adv. Energy (5)
Erwin S. McCalla, Eng. Test Op. M/S(5)
Bartlam T. Whitehurst, Instr. Test (6)
James J. McCarthy, ILS Elect. Pack. (6)
Edward J. Campbell, Qual. Eng. (6)
Edward C. Ulrich, Aircraft Progs. (7)
Erling M. Holm, Matl. Ops. (8)
Louis P. Minerva, Manufact. Bus. Mgmt. (9)
Catherine M. Jeransky, Corp. Security (18)
Gustave W. Hansmann, Struct. Des. (25)
Herbert Leung, Pwr. Plt. Des. (25)
Frederick J. Bronleben Jr., Electromech. Des. (25)
Venus Vasilakos, FAC Admin. (30)
Anthony T. Mascia, ILS Site Rqmts. (35)
Robert J. Koegel, Qual. Eng. (35)
Robert J. Lecat, Aerodym. Des. (40)
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Harold Osswald, Prototype (1)
Harvey P. Mason, Fin. Assy. (1)
Saverio A. Rucci, Elect. Fab. (1)
George C. Rath, PMM-MIL & Space (1)
William B. Gadzuk, Equip. Therm. Des. (1)
Robert W. Nash, Sys. Des. (1)
Everett A. Loeffler, Small Parts Fab. (2)
Francis Varga, Parts Paint (2)
Vito J. Giardina, Prototype (2)
Earnest L. Rich, Tanks & Ducts (2)
Horace L. Holloman, E.B. Welding Prod. (2)
John W. Donohue, Prod. Release & Anal. (2)
Robert L. Miller, Mfg. Admin/Bus. Mgt. m/s (2)
Steven S. Delnicki, Jigs & Fixtures (2)
Robert W. Bennett, Indust. Eng. (2)
John F. Bachota, Tool Cntrl. (2)
Charles G. Haubeil, Maint-Rearrange (2)
Mario J. Bontempi, Maint-Facil. Equip & Gen. (2)
Susann E. Ettlinger, M & ME M/S (2)
Harry Caroll, Convent. Machs. (3)
Warren C. Hunt, Convent. Machs. (3)
Joe Davis Jr., Parts Paint (3)
Charles Brewster, Prod. Cntl-Parts Cntrl. (3)
William F. Hughes Jr., Maint-Rearrange. (3)
Leonard J. DiBono, Maint-Rearrange. (3)
James F. Greene Jr., Mech. Struct. & Proto (5)
Peter C. Holmgren, Supp. Equip. Prod. (5)
William Ashley, Maint-Facil Equip & Gen. (5)
Carol A. LaNier, Fin. Op/Secretaries (5)
Stanley L. Baker, Corp. Instr. Ground Test (5)
Joseph Wilson Jr., Corp. Contracts (5)
Mary S. Mickol, Exec. Staff (5)
George W. Wachsmuth, Meas. Stds. (6)
Robert Stacknowitz, Sftwre. Appl. (7)
Robert J. Pekar, Flight Avionics (8)
Cesar A. Marin, Templates (11)
Lester C. Brown, Maint-Rearrange. (12)
Rocco J. Douso, Maint-Rearrange. (12)
Roy H. Sprague, Maint-Rearrange. (12)
Dominick Ardolina, Maint-Rearange. (12)
Peter B. Arigo, Meas. Stds. Lab. (12)
Richard Sicuranza, Elect. Test (14)
Ann M. LoPalo, Repro Servs. (15)
Daniel J. Collins, ILS Tech. Writ. (15)
Walter E. Olsen, ILS Tech Writ. (15)
Ernest C. Nissen, ILS Tech. Writ. (15)
Dennis J. Coffey, ILS Tech. Writ. (15)
John R. Riccobono, ILS Prod. (15)
Albert J. Hanner, ILS Site Rqmts. (25)
Johnny C. Alston. Invent. Cntrl. (30)
Evelyn L. Malloy, Cust. Supply Reqts. Mgt. (30)
Bernard H. Greiner Jr., Fin. Depart. (30)
Milton C. Danielsen, Supplier Cntrl. (30)
John H. Rooks, ILS Ops. Supp. (35)
Helen M. Roach, ILS Tech. Servs. (35)
William M. Vojir, Comput. Equip. Des. Stf. (35)
Madeline F. Katala, Info Rec & Serv. (40)
Donald J. Plate, ILS Commod. Cntrl. (43)
Sanford Dannenberg, Mech. Struct & Assy. (43)
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Irving P. Ballou, Avionics Sys. Test-Temp. (43)
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Vincent J. Murtha, Elect. Box Pan & Draw Fab. (43)
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John J. Pinto, GSE Sched. (43)

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W. Kirchberger

E. Mc Calla

B. Whitehurst

J. Mc Carthy

E. Holm

L. Minerva

G. Hansmann

H. Leung

F. Bronleben Jr.

V. Vasilakos

R. Koegel

R. Lecat

G. De Voe

J. Connolly Jr.

W. Turnquist

A. Knight Jr.

T. Doyle

milestones

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William Harris Jr., Resources (43)
Lawrence P. Ready, Autoclave (66)
Robert L. Tobie, Prototype/Detail Parts (77)
Stanley Green, ILS Sys. Concepts (107)
Andrew M. Young, Maint-Facil. Equip & Gen. (111)
John T. Greer, Paymaster (111)
Irwin Dworsky, Fld. Ops. Logis-Other Plts (280)
John T. McNamara Jr., Supplier Cntrl. (287)

obituaries

NICOLA ROMANO of ILS Digital TPS Engineering, Plant 1, died September 27 at the age of 56. He had been with the company since 1971 and resided at 21 Downhill Lane, Wantagh.

JAMES C. KILBANE of Subcontractor Surveillance, Plant 287, died September 30 at the age of 56. He had been with the company since 1979 and resided at 17200 Burbank Blvd., Encino, California 91316.

BARRY P. EDWARDS of EF-111 System Test & Preflight Data, Plant 6 died October 1 at the age of 36. He had been with the company since 1972; his address was RFD Box 923 Brood Ave, Riverhead.

FRANK P. CACCAVALE of Maintenance-Facilities Equip. & Gen., Plant 6, died October 5 at the age of 30. He had been with the company since 1975 and resided at 112 Neptune Ave, Mastic.

FRANK GORMAN of Electronic Test, Plant 14, died October 9 at the age of 61. He had been with the company since 1964 and resided at 694 Pleasant Ave, Westbury.

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Carlos P. Caine, Prototype (1)
Chester H. Emery, Envir. Cntrl. Des. (1)
Brewster T. Gillies, Field Ops. Svcs-Other Plts. (5)
Peter A. Perrino, Support (6)
George F. Woessner, Jigs, Details & Sub-Assy. (6)
Stanley J. Sendlenski, Elect. Fab. (7)
Marjorie R. Dolderer, ILS Qual. Cntrls. (15)
Walter F. Hayes, Config. Data Mgmt. (25)
Rosalie Davis, Invoice Audit (30)
Philip S. Jacknis, Mech. Des. Staff (35)
Anna Becker, Ep Circ & Mod Fab-Temp (43)
Robert S. Chapman, Prod. Cntrl. (43)
Ivey L. Wiggins, Qual. Cntrl. (77)
Charles L. Myers, Pwr. Plt. (77)
Tony T. Solomon, Pwr. Plt. (77)
Martha E. Wyne, Elec. Sub-Assy. (77)
Darrell L. Ramsey, Houston (52)

Safety first. *Earlier this month at the Greater N.Y. In-The-Water Boat Show at Freeport, Grummanite John Lovisolo directed members of the Boy Scout Explorer Post #1 as they demonstrated safe scuba-diving techniques. Lovisolo (standing on boat with cap) is scuba advisor and training director for the post; he works in Software Analysis, Plant 14.*

Wanted: eyeglasses

New Eyes for the Needy, Inc., is a charity group devoted to providing eyeglasses for those who can't afford them.

The group collects discarded eyeglasses, along with old watches, jewelry and silver, and sells the precious metal to a refiner. This finances the group's entire operations, which last year provided new glasses for more than 8,500 Americans.

Donations of old eyeglasses and jewelry as well as requests for information may be sent to New Eyes for the Needy, P.O. Box 332, Short Hills, N.J. 07078.

GRUMMAN plane news

Vol. 42, No. 19, October 28, 1983. Bethpage, N.Y. 11714